QUANTA

QL USERS AND TINKERERS ASSOCIATION

Vol. 29 Iss. 6

Information on the Association

Membership of QUANTA, the independent QL user group, is by annual subscription. The Membership Secretary can supply full details. Copies of the association's constitution & annual accounts are available from the Secretary. There is an extensive software library. There are active national subgroups. Details are given in the Member's Guide and in this magazine.

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COPY DATE for FEB/MAR 2013 ISSUE is:

5th FEB 2013

Please ensure that your copy reaches the editor on or before that date. Copy on Paper or Magnetic Media or by Email. Text & listings are preferred in ASCII format as text files, Word Documents or in QL Quill formatted files. All graphic submissions in as higher resolution as possible, preferably in PNG format, other forms of submission can also be accepted, please contact the Editor for details.

Copy by Email to - editor@quanta.org.uk

All Contributions are Welcome.

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EDITORIAL — Lee Privett

In this issue you will find Notification No:2 of the QUANTA AGM to be held on April 14th 2013. The workshop and AGM will take place on the weekend of April 13/14th 2013 in Manchester. Please try to attend in person or electronically (Skype) where possible or complete and return your proxy form (included in your February/March Magazine) in good time. Please try and make the AGM meeting or the workshops on either days.

CHAIRMAN'S NOTES — Sarah Gilpin

The Committee met on Sunday 7th October 2012. For the first time we used Skype to enable Lee Privett to attend electronically. We found that it worked well, and was cost and time effective for all concerned. The Committee received apologies from Dilwyn Jones who had a prior engagement and John Gilpin who was in hospital.

Our first consideration was the AGM in 2013. We have taken seriously some of the suggestions that we have received regarding one day or two day AGM weekends or just holding an AGM meeting. We have also seriously considered location and costs. We tried holding a single day AGM/workshop in the centre of the country, (Birmingham and Coventry) in the hope that more

members would attend but found that there was no appreciable increase in numbers attending. There were considerable additional costs incurred as the venue hire was more expensive and the Committee members attending had travel and subsistence expenses.

The last two years we have reverted again to Manchester and a two day weekend. In our discussions we noted that those travelling from either Scotland or Southern England would have to stay for one night regardless of the meeting covering one or two days. We also considered dates – and have chosen the weekend April 13th/14th 2013 with a dinner at the Pond Quay on Saturday the 13th.

With the success of using Skype for our Committee meeting, we are looking to use some form of electronic connection to enable members who are unable to attend the AGM to take part during the meeting. Any members wishing to attend the AGM electronically must notify the Committee as early as possible

(committee@quanta.org.uk)

Subject: “AGM Skype attendance”

in order that connections can be made and tested before the event.

We also discussed the Web site and suggestions that had been received on that topic. Keith Dunbar, QUANTA Web Administrator is going to look into an alternative Web host that is cheaper than the one currently being used. He is also going to put suggestions to the Committee on the best way forward, i.e. a static site or an interactive site, considering the number of members who use it. For this he will work closely with Dilwyn Jones before putting proposals to the full Committee.

Finally if anyone has any points they would like raised at the AGM for consideration please would they send their proposal in writing to either Sarah Gilpin or Alison Southern before Feb 1st 2013. Our contact addresses are at the front of the magazine.

QUANTA NEWS — Dilwyn Jones

News From Urs König (written on 12.12.12)

Today is a very special day. It's the last day - at least for this century - on which day, month and year (short form 12.12.12) are the same numbers. It will take "us" more than 88 years until January 1st 2101 where the world will have the next date with the same logic (01.01.01), but only if the world will not end on 21.12.12. ;-)
http://en.wikipedia.org/wiki/2012_phenomenon

To celebrate this very special day - I mean today, not the 21st ;-) - I decided to spend some time and bring another long running retro-computing project to an (intermediate) end. The "Sinclair QL Picture Gallery" (SQPG) version 3.10 is to be released today. It consists of 1693 exclusive pictures in 68 folders and is available as

an online experience on my cloud based SkyDrive web-presence. Details and links can be found on the "Sinclair QL Preservation Project" (SQPP) webpage and on my QLvsJAGUAR YouTube channel. http://tinyurl.com/sqpp25

For those interested in more general Sinclair- and Retro-Computing/-Gaming, please notice that there are specific Picture Galleries for Sinclair (Microvision, ZX range, C5, Z88, etc.), Computers (Amstrad, Apple, ATARI, Commodore, DEC, NeXT, SUN), ATARI JAGUAR, NUON and other Video Games. Just open the Picture Gallery using the 3rd link on the top right side on my YouTube channel http://www.youtube.com/QLvsJaguar

Take your time, surf by and enjoy the images. You better do this in the coming days to make sure not missing something. You know, just in case the world ends next week. ;-)

(Thankfully it didn't, so you are able to read the above)

Always remember: "QL forever!"

Raspberry Pi in a Sinclair QL Keyboard

Someone somewhere has been busy putting a Raspberry Pi into a QL case and rewiring the QL keyboard to suit. Watch the video on YouTube at: http://youtu.be/qnvpVBQ44hQ

For information on how the keyboard was adapted, see http://www.deblauweschicht.nl/tinkering/qlkeys2.html
For information on how the case, keyboard and other aspects were adapted see the web page

QUANTA

QL USERS AND TINKERERS ASSOCIATION

World-wide membership is only by subscription and offers the following benefits:

Bimonthly Magazine - up to 56 pages

Massive Software Library - All Free! : Free Helpline and Workshops

Regional Sub-Groups: Is there one near you?

Free advice on Software and Hardware problems

1 year Membership Subscription £18 (includes eMag)

If you want a printed copy of QUANTA magazine, add the following postage rates

The 2013 postage rates are: UK £4.00, Europe £22.50 and ROW £29.50

PayPal Surcharge about 5% - PayPal (see QUANTA Web Site)

Cash, Cheques and Postal Orders Accepted

*****Now in our Twenty Ninth Year*****

Email: membership@quanta.org.uk
Website: http://www.quanta.org.uk

Further details from the Membership Secretary

John Gilpin, 181, Urmston Lane,Stretford
Manchester. M32 9EH (UK)
Tel. 0161 865 2872

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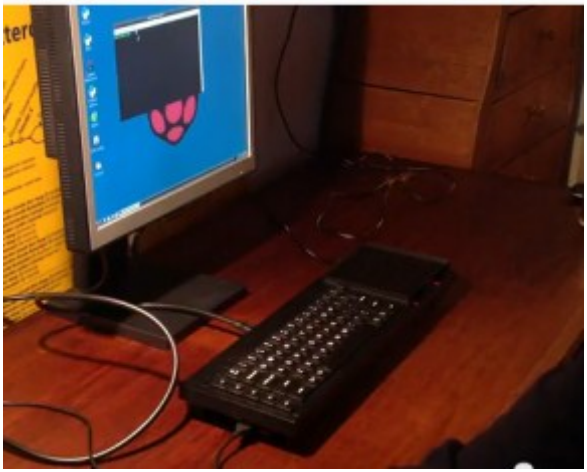
Website: http://www.deblauweschicht.nl/tinkering/qlkeys2.html



One of the images from the website showing the QL

QaLendar 2013

My annual QL-themed calendar, The QaLendar, is now available for 2013. It may be downloaded free as a PDF or Word 2010 file from http://www.dilwyn.me.uk/gen/calendar/calendar.html

More calendar utilities (including SuperBasic programs to help create your own calendar) are available from the Utilities page on the website http://www.dilwyn.me.uk/utils/index.html.

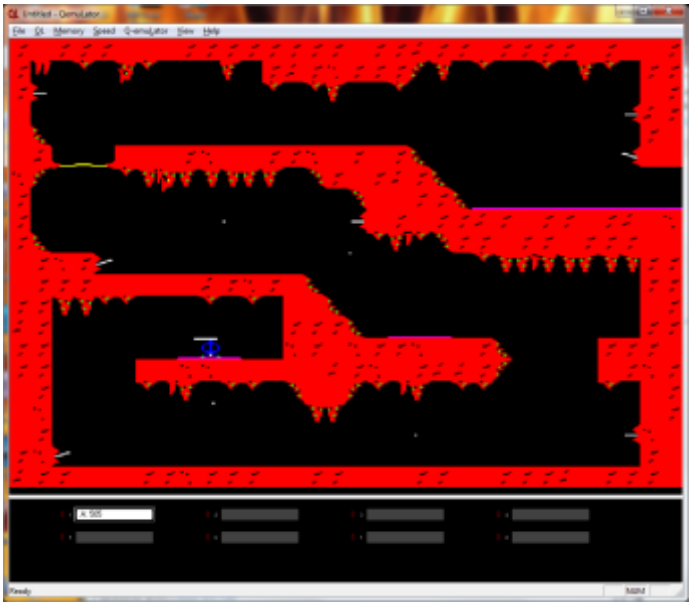
Frank's Sprite Generator

FSG is a sprites package for QL SuperBASIC, written by Frank Linder in Sweden. FSG stands for "Frank's Sprite Generator"! It was written in the 1980s but never released commercially. Frank has now given permission for it to be released as Freeware.

The package includes an icon editor, screens editor and music editor, along with some very playable sample demo games including Heli (a helicopter game), Aste (based on Asteroids), Grott (a cave/mountain adventure game) and Combat (2 player helicopter game).

Note that the package only runs on a system with QL mode 8 screen resolution and colour mode, with system variables atthe address of an original QL system. Sprite control is via a comprehensive set of BASIC extensions, creating games which can run interpreted in SuperBASIC and compilable with Q-Liberator.

The zipped package is a 120KB free download from the Games page on my website at http://www.dilwyn.me.uk/games/index.html



Screen shots of the demo program

MAY 1984 **Lee Privett**

In an occasional look back at the QL's history, we comment on the publications that were about at the time. Again for 50p May 1984 saw a 24 page QL.USER (incorporating Professional Computing) magazine supplement. Now edited by Peter Rodwell, the magazine had increased in the number of pages from the March issue earlier which reflected in more articles.

There is an indication in the magazine that the availability of the Sinclair QL was still quite rare and it refers a number of times to companies introducing new products specifically for the QL without having seen one for little more than a couple of hours. The contents page depicts a variety of subjects, comparison of the QL to the ill fated PCjr from IBM, rivalry comment from Acorn, and interview with Nigel Searle (the MD of Sinclair at the time) and in this issue they began a course in learning SuperBASIC.

Example listings were many, but quite basic (sic) by todays acceptable standards. It is hard to think that some of us absorbed with glee the examples of:

```
NAME$ = "Your Name"
AGE = 55
PRINT NAME$
PRINT AGE
```

Mastering that we were then taken on a journey through the SELect ON/ END SELect process before finishing with a wonderful statement based around a programming issue of number selection, “Problems are caused here by the phenomenal accuracy of the QL when it comes to calculations”. Advertising has increased to six whole pages, solely for dot matrix printers and computer magazines.

It was interesting to note that the interview with Nigel Searle took around six columns of copy, three of those columns focussed on the microdrives, one column of QDOS and the 68008 processor. The opening gambit by the interviewer Adam Denning , tried to get to the bottom of what market the QL was aimed at, it appeared to be education.

If you have something to say or want to make a comment on this or any subject, then email: editor@quanta.org.uk

A GRAPHICAL PROBLEM — George Gwilt

There are various problems in graphics, such as filling an outlined area with a particular colour, which require a knowledge of the status of each relevant pixel.

You might want to know whether a particular pixel was part of the outline, was already coloured or was neither. In this case you could store the information in an array of bit pairs, one for each pixel in the object.

Since all QLs from the Super Gold Card onwards, as well as the emulator QPC2, have access to the extra assembler instructions in the 68020+ set these might as well be used in assembler programs. Here, then, is an example showing how the set of bit pairs can be manipulated.

It is assumed that there are two items stored in dataspace to which it is assumed that A6 points. The items are:

pw	which is the width of the object in pixels, and
bitsad	which is the absolute address of the array of bit pairs

The coding for the two subroutines SETB and GETB is given below. SETB sets a value in the bit pair corresponding to pixel (x,y) and GETB extracts the bit pair to D3.L and tests its value.

```
; On entry:  D0.W = x | D1.W = y
;For setb - D3 bits 0 & 1 contain the value to be set
```

```
; On exit from getb D3.L contains the sign extended value of the bit
pair.

; Only register D2 is used

setb    bsr     pixad           Put the offset of x,y) in D2.L
        bfins   d3,([bitsad,a6]){d2:2}
        rts

getb    bsr     pixad       Put the offset of (x,y) in D2.L
        bfexts  ([bitsad,a6]){d2:2},d3
        Rts

; D2.L is set to contain the number of bits from the start of bitsad
; to the bit pair for pixel (x,y)

pixad   move.w  d1,d2
        mulu.w  pw(a6),d2
        ext.l   d0          x in D0.L
        add.l   d0,d2
        add.l   d2,d2       2x + 2pw.y in D2.L
        rts
```

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www.qlforum.co.uk

http://www.qlforum.co.uk

NOTES

1. The items in curly brackets in the BF... instructions are: first the offset in bits, ranging from -2^31 to 2^31 - 1, of the start of the array to the start of the bit field to be accessed: second the width of the bit field, between 1 and 32. In this example the width is 2.

2. The BFEXTS instruction extracts the two bits to D3.L with sign extension, sets condition code N if the most significant bit in the field is 1 and sets Z if both bits are zero. This will only distinguish between three states: Z for %00, N for both %01 and %11 and neither Z nor N for %01. To distinguish between %10 and %11 it is perhaps simplest to add 1 to D3.L which becomes zero for %11 in which case Z is set.

3. The BFINS instruction inserts the two least significant bits of D3.L into the bit field.

4. In the BF... instructions the effective address ([bitsad,A6]) may be unfamiliar to some. An address such as (A1) accesses the contents of the address in the register A1. ([bitsad,a6]) goes one further. It accesses the contents of the address to which the address in bitsad(a6) points.

5. Finally it should be obvious that these routines can be used for other applications than graphics. Nor need the number of bits be restricted to two per item.

2012 FOR ME — Dilwyn Jones

2012 was a year which has left me with mixed feelings. I feel positive that there have been moves to update the uQLx QL emulator for Linux systems such as Raspberry Pi.

I feel positive that a quality new game has been released for the QL (QJewels) and that a number of older titles are available once more, thanks to the efforts of Rich Mellor, for example. Above all, I'm glad I've been able to fill the news pages as well as I have. Keep sending me news of course to news@quanta.org.uk – it's quite remarkable I've been able to provide as much news for a computer out of production for more than a quarter of a century!

I was also pleasantly surprised to be able to fill as many Helpline columns as I did. After nearly 30 years of the QL you might think there were no more questions to be asked. Wrong. Keep sending me the questions (preferably by email – sorting out complex problems by phone is just not possible). Quanta does operate a Helpline for its members, so don't be afraid to ask us for help – emails us on helpline@quanta.org.uk - the worst we'll do is say

“sorry we don’t know the answer to that one!” It continues to be a great source of inspiration to me when I come across some QL websites I’ve never seen before. The latest one I have enjoyed browsing is the ‘QL Heaven’ website at http://qlheaven.blogspot.de/ - don’t know who the author is, I am just grateful to him for his blog writing! QL Forum also continues to be a great site to visit as far as I’m concerned.

The low spot of 2012 had to be the departure of Memory Lane Computing from the QL scene. Although their Ser-USB product was probably never going to be a mass-market product, the QL-SD project probably would have been.

With microdrive cartridges being pretty rare now and floppy discs increasingly going the same way, an SD card interface would have provided a neat combination of removable drive and hard disc capacities. I just hope that somehow, somewhere this project will reappear in 2013.

Quanta’s website has continued to be a source of frustration to me, as someone who has run his own QL website for some years now. When it was first mooted, the Content Management System seemed a perfect solution – all committee members could edit and provide content. Sadly, it was never that easy.

QL Today

Volume 17
Issue 2
Dec. - Feb.
2012/13

ISSN 1432-5454

The Magazine about QL, QDOS, Sinclair Computers, SMSQ...

The only remaining question is:

WHEN?

This issue has been mailed to the subscribers before XMas ... and the "When?" was not related to the release date of this issue – we are trying hard to deliver in time!

Happy New Year to all QLers!

www.QLToday.com

QL Today Volume 17

We at QL Today are now in our 16th year and the 17th is coming up soon! The issue 1 of Volume 16 came with a DVD (included in the price) containing all previous issues of QL Today in PDF format - from Volume 1 to Volume 15, English and German (as long as German ones were produced). We ask for early renewals as this allows us to plan ahead. We are thinking about about another "goodie" next volume, but this also depends on the renewal situation. Saving on sending out reminders gives us extra pages to add to the magazine.

You can subscribe by using this form (or a copy of it), or subscribe online via www.QLToday.com (the form can be downloaded), by email, letter, fax etc. ... we are flexible!

I hereby subscribe to **QL *Today* for 4 issues of Volume 17. The total price for all four issues** is as follows, including postage and packing (depending on destination)

Destination	price	
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Personally, I had problems accessing it for some time and only successfully managed to use the News section when I got my new Windows 7 PC. We struggled and struggled with it and in the end took the hard decision to move back to a static website and try to do the best we can with that in 2013.

On a personal note, my own disappointments were the number of software projects I started and never got time to finish, such as my Q-Dock program, the Wordbox CD and a few other projects. Now that I have once more joined the ranks of the unemployed after my contract at work ended in December, I just hope that I can get to spend time finishing off my software projects when I am not looking for work.

ATTENTION ALL QUANTA MEMBERS — John Gilpin

Alternatively: "Treasurer's Lament"

Following the 2011 AGM, Keith Dunbar (then Treasurer) and myself (Membership Secretary) settled down and wrote individual letters to all the then QUANTA Members informing them of the Subscription changes agreed by those members present at the meeting and also the

effect that continually increasing Royal Mail charges would have upon the amounts and the methods used to pay the full membership fee. We requested in our letters that the current annual Standing Orders should be cancelled due to the varying amounts payable, year on year, and another more convenient form of payment chosen.

During what was left of 2011 and throughout 2012, I (now back as Treasurer and Membership Secretary) received numerous Standing Orders from members who either could not read our small print or thought that they could get away with the old £14.00 to pay for either the 2011 and/or the 2012 membership Fee (The sum of the new Subscription Rate - £18.00 plus the current Postal Fee). It is possible that some members, not being present at the AGM when the new rates were agreed, thought that the new rates did not apply to them! Since the amounts received were insufficient to pay for the new subscription alone, let alone the newly increased Postal rates, I put all these miscellaneous receipts into a Suspense Account (in order that they would be available for refund if and when requested).

In October 2012, the suspense Account had risen to an astounding £750+ and I spent considerable time and effort in putting together another letter explaining, yet again, the increases in subscriptions agreed in 2011, and the charges made by Royal

Mail to post a Second Class 100 gram standard letter, both in the UK and abroad.

Rather than hope that our members were going to make a number of reasoned comments in their reply, I included a series of “tick-box” options, the main idea being to find out whether they wanted to pay the shortfall for 2011 and/or 2012, wanted their money returning to them or to give up their membership altogether and donate their portion of the suspense account to QUANTA.

Out of almost 50 letters sent out - each with a reply paid addressed return envelope, I have so far received about 15 replies and the total suspense account still has over £500 in it!! I did get one reply that in addition to ticking a number of options, the member has written that since he was not in attendance at the 2011 AGM and admits to not reading the Minutes of the AGM as published in the Magazine, was not aware of any increases in subscriptions. However, having been given the option to resign his membership of QUANTA, he has updated his 2011 and 2012 membership fees, left the balance to QUANTA donations and requested his back issues of QUANTA Magazine. How many others either cannot read the magazine any longer or choose not to read the magazine and any letters received from QUANTA?.

The letter I sent to one of our “Life Members” in Thailand was returned by Royal Mail as “Unable to Deliver” in just three days - did it really go all the way to Thailand and back? I doubt it but it is now three years since I had anything from this member and I am beginning to wonder whether he has finally “gone Home” as we say in Scouting.

If you are reading this “lament” then obviously your membership is up to date and you a probably not a beneficiary to any of our suspense account. If any of you have any bright ideas on how I can get a realistic reply from our members, please write and let me know.

We stated in our letters sent out in October that if we did not receive any reply by December 31st 2012 then the monies remaining in the suspense account will automatically be transferred to the Donations Account with our grateful thanks. My thoughts are currently turning to horses, water and drinking!

All our members, current and past, still have my Kindest Regards and Best Wishes for 2013 - providing they have now **Cancelled their old £14.00 Standing Orders.**

Merry Christmas everyone

Note: Those members who have opted for Full Membership with the eMag version of the Magazine, may still use standing orders for payment of their fixed Membership Fee of £18.00 (there is no postage charge for taking the eMag by email to your chosen email address).

WEBMASTER — Keith Dunbar

I took over in April 2012 as webmaster, and it had been my plan to have the site running with members able to log in to the website in order to download magazines from the site, however the site has been somewhat unstable in recent months, and when some members posted to the mailing list that the amount paid for the website was excessive (this was paid to have a managed service where they would ensure the service was up) I had to swap to moving the site to another provider.

Unfortunately the move has not gone well, and I am still trying to create a usable version of the existing site on another server as the provider has used some unusual configuration.

Once I can make a backup (or if needed manually ported the site content) I will temporarily host the site on my own server until a reasonably priced provider has been agreed on. I have received several offers of hosting from within the QL community (thank you

NOTICE NO.2

The AGM of QUANTA will soon be upon us again.

Nominations are invited for the posts of Chairman, Secretary and Treasurer, together with the ordinary members of the Committee.

As normal all other posts will be drawn from the ordinary Committee members. I would like to remind you of the clauses of the Constitution that refer to Election to the Committee, Nominations for Committee Posts, and Special Resolutions:-

4.2 Any member seeking election to the Committee shall declare any commercial interest that he or his employer has in the activities of QUANTA or its members.

7.3 All nominations for Committee posts shall be signed by the intending proposer, a seconder and the nominee and be sent to the Secretary to be received before 1st February in each year so that they can be circulated with the notice convening the meeting.

7.5 Any proposition to change the Constitution shall be by Special Resolution. A Special Resolution requires to be sent with the notice convening a General Meeting (or Annual General Meeting) giving at least twenty eight (28) days notice and requiring a two-thirds majority of those voting.
Necessary qualifications for the Committee are basically time and lots of energy.

Alison Southern
S e c r e t a r y
20th December 2012

QUANTA AGM 2013

NEMQLUG INVITE ALL QUANTA MEMBERS
to JOIN THEM in MANCHESTER for a 2-day QL WORKSHOP
and QUANTA AGM

Venue: “The Endeavour”, 3rd Davyhulme (Lostock) Scout Headquarters, Conway Road, off Lostock Road, Davyhulme, Manchester, M41 0TF

on

Saturday 13th April 2013 from 11.00 am to 4.00 pm and Sunday 14th April 2013 from 10.00 am

The Annual General Meeting will be held at 2.00 pm on Sunday 14th April 2013.

For any members that wish to attend the meeting via electronic means please notify the QUANTA Committee
< committee@quanta.org.uk >
and we will arrange a connection where possible.

Hotel and bed and breakfast accommodation is plentiful in the area, either at Premier Inn, Travel Lodge or Holiday Inn. Alternatively NEMQLUG can recommend the Thistlewood Hotel, Urmston Lane.
Information on these is available on the relevant websites.

Directions to the venue will be available in the Feb/March 2013 magazine.

QUANTA

Invite all those attending the
Workshop and AGM
on Saturday 13th April 2013 to join us for a
Chinese banquet
at The Pond Quay, 15 Croftsbank Road, Urmston, Manchester, M41 0TZ

at 7.30 pm

The cost will be £25.00 per person, with a £10.00 deposit payable to the Chairman by 1st April 2013.

Cheques to be made payable to QUANTA.

Anyone who has any special dietary requirements should specify these when making their deposit.

The Pond Quay can accommodate most requests, if they are given enough notice.

NOMINATIONS FOR QUANTA COMMITTEE 2013/2014

POST Chairman/Secretary/Treasurer/Committee Member
(delete as necessary)

CANDIDATE (Signature) ……

Name ..... (Block Caps)

Address ..... (Block Caps)

.....

.....

PROPOSER (Signature) .....

Name ..... (Block Caps)

Address ..... (Block Caps)

.....

.....

SECONDER (Signature) .....

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.....

all for the offers!), however, I need to discuss these with the committee to establish if any of these are acceptable for us or if we need to go with a large scale ISP.
I do also have thoughts of allowing QUANTA to host other sites on a Virtual Private Server (VPS) so that QUANTA can further reduce the costs and I am considering moving my own personal sites to such a service, but that will depend on how simple the process is.

I am also looking for help and assistance from anyone in the QL community to update the website, write articles (which could also be published in the magazine) and generally update the website.

Any offers please email webmaster@quanta.org.uk

THE RASPBERRY Pi AND THE QL — Norman Dunbar

A Brief Look at the Pi.

The Raspberry Pi was created by the Raspberry Pi Foundation, a UK registered charity, to try and promote programming and proper computer skills amongst the "youth of today" - the people who will become the engineers and programmers of tomorrow.

Eben Upton was working at Cambridge University and noticed a decline in the number of people applying for Computer Science

RWAP Software

We have been working hard to safeguard the future of the Sinclair QL through creating an online QL Wiki backed by a repository of QL titles.

The QL Wiki enables people to see what software and hardware was produced for the Sinclair QL. The repository enables people to purchase working copies when their microdrive cartridges fail, or they move onto disks or emulators. Where we can, we obtain permission from the copyright holders to re-release items on the market.

This has enabled us to bring some of the titles back to the market as well as re-kindle interest in the Sinclair QL and its emulators.

Old favourites brought back to life include:

E.V.A., Vroom
Black Knight, Double Block
Jungle Eddi, The Lost Pharaoh
Pengi, the Lonely Joker
Microdeal's Flight Simulator, QL Hopper, The King,
Night Nurse and Cuthbert in Space
Mortville Manor, Darkside of the Moon (£10)

We still retain our existing catalogue, including:

Open Golf, Return to Eden,
Stone Raider II, The Prawn,
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All games are available on disk or for use with Q-emuLator on the PC **from ONLY £5 each**.

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Visit the QL Wiki for more details on software, books and hardware for the Sinclair QL:
www.rwapadventures.com/ql_wiki

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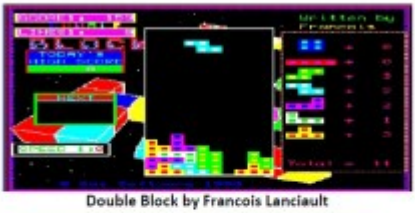
Email: rich@rwapservices.co.uk

Website:
www.rwapsoftware.co.uk or www.sellmyretro.com

Vroom by Pyramide

E.V.A by Westway

Mortville Manor by Pyramide


Double Block by Francois Lanciault

Night Nurse by Microdeal

Working to safeguard the QL for the future. www.rwapsoftware.co.uk

degrees who had good programming skills. Investigation put this down to the fact that all ICT in schools was based around using a word processor, a spreadsheet and using <hack, spit> Powerpoint! In other words, ICT was training people to be *users* as opposed to *innovators*.

The foundation is made up of a number of people, one of whom is David Braben, one of the authors of Elite for the BBC Micro.
The Pi is a credit card sized computer which can run almost any OS that you desire provided it has a version suitable for the ARM processor, and can run in 256Mb RAM – although the most recent models of the Pi have been given a free upgrade to 512Mb of RAM at no extra cost.
Most people run a version of Linux (stay with me Dilwyn, it's not all bad!) called Raspbian which is specifically developed for the Pi and is based on Debian Wheezy. It is the only Linux distribution (aka distro) which uses the hardware floating point co-processor built into the Pi. Other distros use software floating point, and as such, do not perform as well.

There are other distros available – Arch Linux, Debian, XBMC, Fedora and most recently, a non-Linux distribution of Risc-OS has become available. Some people are working on putting Android and Chrome-OS on their Pi as well.

QL Emulators.

Most of the QL Emulators are specifically written for Intel x86 (or equivalent) processors, and as such, cannot be run under Wine unless the underlying hardware is x86. Although I run QPC under Wine on my Linux laptop, Wine cannot be used on a Pi because Wine is specific to the x86 architecture. Putting it simply, it will not run on a Pi. There is actually no package that you can install on a Pi to get it installed – so even Wine itself is a non-starter.

It's possible to run a QEMU system which itself emulates the ARM chip, and run a Pi system on that. But that's not the idea here, we are looking for a QL emulator to run *on* the Pi.
I haven't seen the source code for QPC, but I remember a conversation with Marcel a long time ago where he advised me that quite a lot of QPC was written in assembly, and as such, we would need a complete rewrite to get it running on the Pi.

Qlay might be a possibility at some future point as it is written in C, and I while have seen the source code for it. I don't remember seeing any assembly specific stuff in the source code, but it has been a while since I read through any of it.

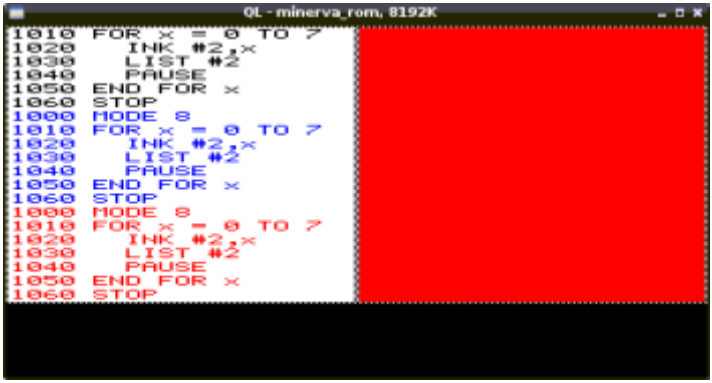
Given the above, it was looking for a while as if there would need to be a lot of work done by someone to get some form of emulator

working. People tried and hit problems compiling the source code for uQLx and all sorts of people had different versions of source code, so no two sets of errors appeared to be the same.

And then, out of the blue, I received an email from Tobias Fröschle.

QL on the Pi

Tobias privately contacted a few people who had commented on the QL-Users mailing list, about the Raspberry Pi. In his email, he included a zip file containing a newly compiled version of uQLx specifically for the Pi. This came about as a by-product of his need to get uQLx running on his Genesis ARM Notebook – the Pi has an ARM processor too!



Your typical start up screen now on the Pi !

As he only had a Pi running in a QEMU emulator system, he wanted people who had mentioned having a physical Pi to try out

his version of uQLx which he had built for the Pi.
Given the number of people on the QL-Users mailing list who had expressed problems with uQLx compilations, this came as a revelation and completely out of nowhere. There was much happiness!

Tobias has managed to get a working version of uQLx running on the Pi and he is, when I last heard, in communication with the original author(s) for permission to upload the source code, as the definitive version, to somewhere like SourceForge or GitHub to ensure that anyone looking for it can easily find it and be sure of getting the latest and greatest version.

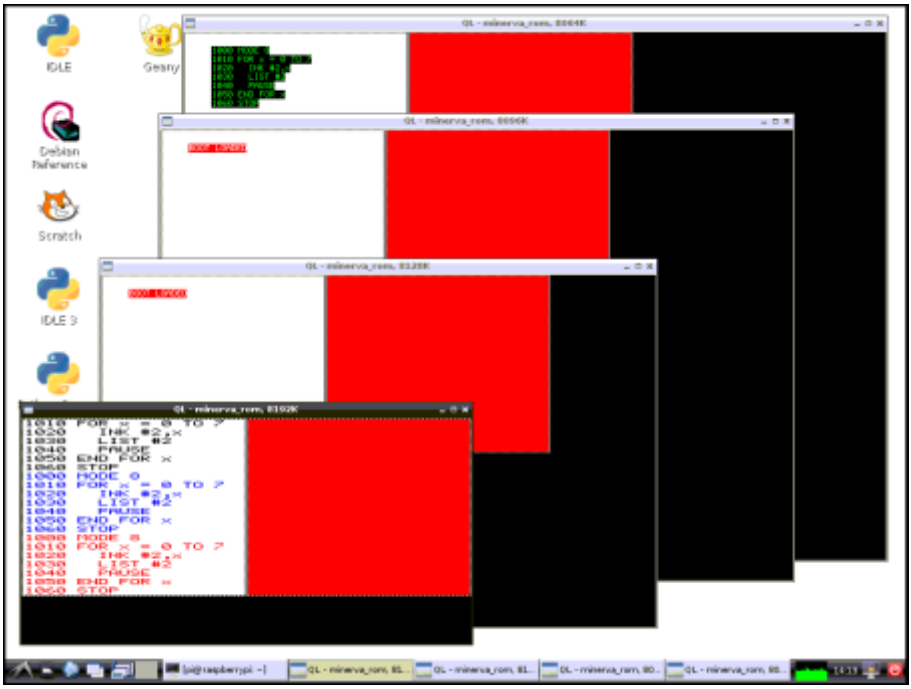
I'm pretty sure that if we do get uQLx source code in a central location, there will be further development on this emulator.
The only thing to do was to install Tobias's zip file and see how it went. It went very well actually!

UQLx

The screen shot that you will hopefully see lurking around this page somewhere was taken on my own Pi setup.

It shows 4 different uQLx sessions running on my Pi. You will note that each one is a different size from the others. This is standard

uQLx, you get 4 different versions of the emulator, each with a different screen resolution. You can also pass a few start-up parameters on the command line and define your own desired resolution. I have not tried that option yet.



Screen shot of several windowed sizes of uQLx

UQLx emulates a pretty standard QL. There are a number of ROMs that can be used, the image shown elsewhere is running a Minerva ROM, but there are others – JS, MGE, Toolkit 2 as well as the Minerva one. The configuration file named .uqlxrc allows you to define which one you load at start-up. The Toolkit 2 ROM can

be loaded as an additional one. The fact that the configuration file has a leading dot means that it will be hidden – similar to QL files on disc with a leading space in their name. There are a few other options in the configuration file. The manual goes into detail about these.

QPAC2 is not supplied. Tobias has advised that anyone using QPAC 2 should not use any version later than ptr_gen 2.01 and/or wman 2.05 as these don't appear to work very well with uQLx – at least in non-QL screen resolutions.

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Installing and Running uQLx

The installation kit supplied by Tobias worked slightly differently to what was advised. I suspect later kits will be better. It installs into non-standard locations. For example, all application documentation should be put into /usr/share/doc/ application_name but uQLx goes into /usr/local/uqlx/lib/uqlx/docs – which is a bit of a mouthful in anyone's language!

Running uQLx – and remember, it's an early version – worked quite well. There are problems with mode 8 on my setup. Changing colours back and forth seemed to end up with a stipple rather than a solid colour. I spoke to Tobias about this and he said that it was similar on other set-ups. Mode 8 seems to have problems.

It was more problematical in the non-QL resolutions, the standard QL seemed to cope quite happily, so it sounds to me as if there might just be a coding error somewhere. Maybe!
Other than that slight problem, you may find that CTRL-SPACE fails to break a program. You need to press F11 first, or configure XKEY_ON to zero in the configuration file.

As uQLx is running on a Raspberry Pi, there is no floppy disc or micro drives, so how do you get your files? Once again, the

configuration file .uqlxrc is your friend.

QL Devices

By adding a line, similar to the following, you can set up a directory as a QL device:

DEVICE = MDV1,/home/norman/uqlx/mdv1/,qdos-like

The format of the above entry is simple, there are three parameters, the first being the emulated device, the second the Linux path to the file or directory and the third is the flags. The example above tells uQLx that the device named MDV1_ will be directed to the directory /home/norman/uqlx/mdv1 and that it is to be treated as a QDOS like system where the files are separate and live on disc. What does this mean?

There are numerous flags – well four, and they can be combined. Qdos-like tells uQLx that the emulated device is not in QDOS format, and that the path points to a *directory* as opposed to a file. The files within the directory will appear to be on the emulated device when you run a DIR command.

Clean tells uQLx that the files in this directory are to be considered temporary and to be cleaned out at the end of the session. In other words, a RAM disc. The device specification for RAM discs is a little different:

```
DEVICE = RAM1-%x,/tmp/,clean,qdos-like
```

The %x forces the temporary directory to be called ram1-nnnn on the Linux file system, The numeric suffix being the process id (similar a QDOS Job Id) of the uQLx running process. This prevents multiple uQLx processes from interfering in each others RAM discs.

Qdos-fs says that the Linux path is to a *file*, not a directory, and that file is considered to be in either a QDOS Floppy disc or QXL.WIN format. In other words, completely native images. **Native** is a synonym for qdos-fs.

Why So Many Versions?

Running uQLx is a choice of 6 different versions of the program. The default QL sized version – which works best in Mode 8 – is called **qm** and provides a standard QL with a 512 by 256 screen at the usual (fixed but not fixed) address on 131072. This one is handy if you have any old QL programs that assumed 128 Kb and a fixed screen location and size.

Next is **qjs** which runs a normal QL, as above, but loads a JS ROM. **Qmin** is similar to **qjs**, but loads the Minerva ROM instead of JS. **Qx**, **qxx** and **qxxx** will load and present a different screen resolution, namely 632 by 400, 720 by 512 or 800 by 600 respectively. None of these cope very well with mode 8 so if you

need to run mode 8 programs, you are best sticking with one of the standard resolution versions of the program.

The command line offers a number of options to set the ramtop, colour or monochrome mode, to define your own desired screen resolution and so on. Many of the options override the settings in the configuration file.

UQLx works well, for an early version specifically for the Pi. I'm impressed. I have yet to attempt running anything with the Pointer Environment, my own copies of the required files are too modern, I suspect I might be able to get hold of some older ones from Dilwyn's web site – but I have not yet checked. I possibly have an old version on one of my floppy discs from many years ago – assuming that they work and/or can be read.

Executable QL Files

One thing to be aware of is executable files. When they are in a floppy image or a qxl.win file, then they just work. These devices are flagged as qdos-fs in the configuration file. However, on qdos-like devices, they are stored as Linux native files, and as such don't have headers. What to do?

When you SEXEC a program, or when your assembler creates an executable, uQLx saves the data space, version and file type etc in a hidden file so that you can subsequently EXEC them.

Obviously, if you copy the files from one device to another using uQLx, then these attributes are preserved, but if you copy them at the OS level, then the attributes will *not* be preserved – unless you copy the entire directory around, including the hidden ".-UQLX-" file. That's its name, including the hyphens.

The Manual

I'm afraid the manual is rather out of date with the supplied program. It mentions compiling from source which is handy if that's your intention. With Tobias's release, there is currently no source code supplied.

The manual is good in places – where it describes the command line options, or the entries in the configuration file, for example, but much of the other stuff is not relevant. As an example, it mentions a utils folder which doesn't exist.

Summary

In summary, there is a lot more work to be done and I suspect that as soon as Tobias gets permission to centralise the source code we will see proper maintenance carried out with new and improved releases as people get to grips with their Pi. With a bit of luck, the documentation will also be updated to suit.

Given that this is a release of software created for a device that Tobias doesn't actually have, I think he's done a grand job and I'm

looking forward to future releases which can only make the product better.

Maybe one day soon, we will see someone create a Raspberry Pi hidden inside a QL case, which boots straight into a QL session on power up – just like Eben Upton has mentioned as his favourite FAQ of all time regarding the Pi - "*Will it be able to run a QL emulator and boot into that when we switch it on*" is something he has been asked many times, and something he recounts when he is presenting the Pi at exhibitions and the like around the world.

PAQMAN SN Deary

With the advent of the holiday season and the return in the last couple of years to retro computing, what better time to relive some of those memories by playing a classic. SN Deary's PAQMAN is listed here for you to enjoy. Originally from QL USER magazine, the listing can be found in the QUANTA library.

```
10 REMark **** QL USER 1985 ****
20 REMark **** PAQMAN : Author SN Deary Bsc ****
100 initialise
110 REPeat forever
120  score=0 : lives=3 : Screen=1
130  REPeat screens
```

```
140   ghosts=Screen-1 : IF ghosts > 2 : ghosts=2
150   drawmaze
160   handicap=Screen+4
170   REPeat moves
180    move_man
190    IF RND(30)< handicap:move_ghost(RND(ghosts))
200    IF end_of_screen:EXIT moves
210   END REPeat moves
220   IF max = 0
230    CLS : AT 5,12 : FLASH 1
240    PRINT 'Bonus ';Screen;'000'
250    score=score+(Screen&'000')
260    FLASH 0 : FOR i=1 TO 300 : i=i : REMark delay
270    Screen=Screen+1
280   END IF
290   IF lives < 1 : EXIT screens
300   IF Screen > 19 : EXIT screens
310  END REPeat screens
320  CLS
330  IF Screen > 19
340   PRINT 'You have won the title of Grand Master'
350   PRINT 'Too good for this game. I concede!!'
360   STOP
370  END IF
380  AT 5,10 : FLASH 1
390  PRINT 'G A M E  O V E R'
400  FLASH 0 : FOR i=1 TO 1000: i=i: REMark delay
```

```
410  IF score > top_score:top_score=score
420 END REPeat forever
430 :
440 DEFine PROCedure move_man
450  INK 2
460  key=KEYROW(1)
470  row=man_row : col=man_col
480  IF key && 2 : col=col-1 : IF col < 0:IF
row=5:col=18:ELSE col=0
490  IF key && 16 : col=col+1 : IF col > 18 : IF
row=5 : col=0:ELSE col=18
500  IF key && 4 : row=row-1 : IF row <0 : IF col=9 :
row=10 : ELSE row=0
510  IF key &&128 : row=row+1 : IF row > 10 : IF col =
9 : row=0 : ELSE row=10
520  prize=maze(row,col)
530  IF (prize&&1) OR key=0:RETurn
540  IF prize&&16:gotcha:RETurn
550  AT man_row,man_col*2:PRINT "  ";
560  INK 6:AT row,col*2:PRINT man$;
570  BEEP 200,max
580  maze(row,col)=0
590  IF prize
600   score=score+prize
610   max=max-1 : IF max < 1 : end_of_screen=true
620   AT #4,0,6:PRINT #4,score;
630  END IF
640  man_row=row : man_col=col
650 END DEFine
660 :
670 DEFine PROCedure move_ghost(x)
680  row=ghost_row(x):col=ghost_col(x)
```

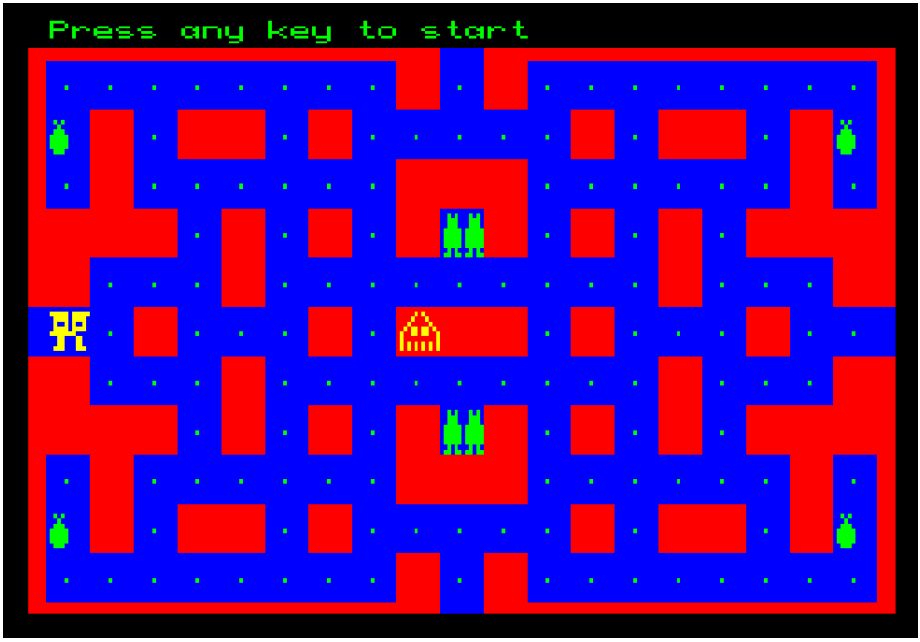
```
690  not_moved=true
700  IF ABS(man_row-row) < ABS(man_col-col)
710   horizontal:IF not_moved:col=ghost_col
(x):vertical
720   ELSE vertical: IF not_moved:row=ghost_row
(x):horizontal
730  END IF
740 END DEFine
750 :
760 DEFine PROCedure vertical
770  IF row=man_row : RETurn
780  IF man_row < row
790    row=row-1 : IF row >=0 : moveit
800  ELSE
810   row=row+1: IF row <=10 : moveit
820  END IF
825 END DEFine
830 :
840 DEFine PROCedure horizontal
850  IF col=man_col:RETurn
860  IF man_col<col
870   col=col-1:IF col>=0:moveit
880  ELSE
890   col=col+1:IF col <=18:moveit
900  END IF
910 END DEFine
920 :
930 DEFine PROCedure moveit
940  IF (maze(row,col)&&17) : RETurn
950  INK 4:OVER -1
960  not_moved=false
970  AT ghost_row(x),2*ghost_col(x):PRINT ghost$
```

```
980  maze(ghost_row(x),ghost_col(x))=maze(ghost_row
(x),ghost_col(x))-16
990  AT row,2*col:PRINT ghost$
1000  maze(row,col)=maze(row,col)+16
1010  ghost_row(x)=row:ghost_col(x)=col
1020  OVER 0
1030  IF row=man_row AND col=man_col:gotcha
1040 END DEFine
1050 :
1060 DEFine PROCedure gotcha
1070  end_of_screen=true
1080  lives=lives-1
1090  BEEP 30000,1,255,200,4,2
1100 END DEFine
1110 :
1120 DEFine PROCedure initialise
1130  set_up_user_defined_chars
1140  MODE 8
1150  true=1:false=0
1160  top_score=0
1170  CSIZE 2,1
1180  OPEN #3,scr_512x256a0x0
1190  PAPER #3,0:CLS #3
1200  SCALE #3,256,0,0
1210  OPEN #4,scr_456x10a32x14
1220  WINDOW 476,230,23,26
1230  BORDER 5,2
1240  BLOCK #3,24,5,248,26,1
1250  BLOCK #3,24,5,248,251,1
1260  BLOCK #3,10,20,23,131,1
1270  BLOCK #3,10,20,489,131,1
1280  DIM maze(10,18),man$(2),maze$(2,2)
```

```
1290  DIM ghost$(2),ghost_row(2),ghost_col(2)
1300  man$=CHR$(131)&CHR$(132)
1310  ghost$=CHR$(128)&CHR$(129)
1320  maze$(0)=CHR$(133)&' '
1330  maze$(1)=CHR$(134)&CHR$(134)
1340  maze$(2)=CHR$(130)&' '
1350 END DEFine
1360 :
1370 DEFine PROCedure set_up_user_defined_chars
1380  start_address=RESPR(100)
1390  register_a0=65537
1400  register_a2=start_address+6
1410  RESTORE 1440
1420  FOR i=0 TO 70: READ byte:POKE
start_address+i,byte
1430  CALL
start_address,0,0,255,37,0,0,0,register_a0,0,registe
r_a2
1440  DATA 32,4,78,67,78,117
1450  DATA 128,6
1460  DATA 4,8,16,44,76,64,84,84,0
1470  DATA 64,32,16,104,100,4,84,84,0
1480  DATA 0,0,0,0,4,0,0,0,0
1490  DATA 124,60,36,60,124,24,24,56,0
1500  DATA 124,120,72,120,192,48,48,56,0
1510  DATA 0,40,16,56,124,124,124,56,0
1520  DATA 40,56,56,124,124,124,124,40,108
1530 END DEFine
1540 :
1550 DEFine PROCedure drawmaze
1560  max=139:end_of_screen=false
1570  RESTORE 1600
```

```
1580  READ man_row,man_col
1590  FOR i=0 TO 2:READ ghost_row(i),ghost_col(i)
1600  DATA 5,0,5,8,5,9,5,10
1610  IF Screen MOD 4 : PAPER 2 : ELSE PAPER 1
1620  CLS : CLS #4
1630  RESTORE 1950
1640  PAPER 1 : INK 4
1650  FOR row=0 TO 5
1660   opposite_row=10-row
1670   FOR col=0 TO 9
1680    opposite_col=18-col
1690    READ prize: maze(row,col)=prize
1700    maze(row,opposite_col)=prize
1710    maze(opposite_row,col)=prize
1720    maze(opposite_row,opposite_col)=prize
1730    IF prize > 1
1740     IF prize = 2
1750      chars$=maze$(2)
1760      ELSE IF prize =6 : chars$=maze$(0):ELSE
chars$=maze$(1)
1770     END IF
1780     AT row,col*2: PRINT chars$;
1790     AT opposite_row,col*2:PRINT chars$;
1800     AT opposite_row,opposite_col*2:PRINT chars$;
1810     AT row,opposite_col*2:PRINT chars$;
1815    END IF
1820   END FOR col
1830  END FOR row
1840  AT 5,16:OVER -1:INK 4
1850  FOR i=0 TO ghosts:PRINT ghost$;:maze(5,8+i)=17
1860  AT man_row,2*man_col:OVER 0
1870  maze(man_row,man_col)=0
```

```
1880  INK 6 : PRINT man$
1890  key=KEYROW(1)
1900  PRINT #4,"Press any key to start";
1910  a$=INKEY$(-1):CLS #4
1920  AT #4,0,0:PRINT #4;'SCORE:';score;
1930  AT #4,0,13:PRINT #4;'TOP SCORE:';top_score;
1940  AT #4,0,31:PRINT #4;'LIVES:';lives
1950  DATA 2,2,2,2,2,2,2,2,1,2
1960  DATA 6,1,2,1,1,2,1,2,2,2
1970  DATA 2,1,2,2,2,2,2,2,1,1
1980  DATA 1,1,1,2,1,2,1,2,1,8
1990  DATA 1,2,2,2,1,2,2,2,2,2
2000  DATA 2,2,1,2,2,2,1,2,1,1
2010 END DEFine
```



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SUBGROUP MEETINGS

Sub group meetings are where QUANTA members and non-QUANTA members get together to discus, tinker and explore all things QL related. If there is a subgroup near you then why not pop along and see what's happening, you never know there may be something you could help with or a problem that you know the answer to. If there is not a sub-group near you why not hold one yourself? Contact the chairman on how to go about it, details on our contact page (pg. 2 Ed.)

THE WEST MIDLANDS QL USER GROUP

The meeting place is called the Bull, the address is 1 Price Street, Birmingham, B4 6JU. It is approximately 7 minutes walk from Snow Hill main-line railway station and has ample street parking nearby. Meetings remain open to QUANTA members and non-members alike.

After your first meeting you're expected to pay £1 each time towards the organisation and monthly newsletter costs - except once a year when the group pays all those who attend, £1 instead.

We provide food twice a year for those who attend the AGM and the group's birthday party) and at meetings we discuss all sorts of things, QL-related and otherwise, usually from about 8:20pm onwards till 10:30 or later. The group owns QL hardware, a disk library and subscribes to relevant magazines. People can join the mailing list for £3.50 per year, even if they can't attend regularly.

Meetings: Meetings are usually on the first and third Monday of each month (but not on bank holidays unless the previous one was cancelled for that reason). Contact: The contact number remains Mike Bedford White's, on 0121 605 4438, anytime after 11am. Email: mikebwhite@blueyonder.co.uk

QUANTA DORSET SUBGROUP – Dorset

Meetings are held, on the second Sunday of each month between 2.00pm and 5.00pm. For location please contact: John Penn-Simkins - 01202 422491 or John Mason - 01425 275894

LONDON QL AND QUANTA GROUP

Meetings are held in the School Room, which is the basement of the Borough Welsh Congregational Chapel, 90, Southwark Bridge Road, London SE1. This is almost opposite the junction with Marshalsea Road, at the other end of which, 5 minutes walk away, is the Borough Underground Station. Free parking is easily available in Southwark Bridge Road for road users, Cyclists are welcome. Members currently each pay a subscription of £40 per year towards the cost of the hire of the hall and a small additional charge is made for tea/coffee - biscuits are then provided free.

Please bring your QL equipment if possible, all types welcome, e.g., PC portable running emulators. The Group has some systems stored at the venue for its use. In addition, there are lots of donated second user equipment, books, magazines, etc., available for purchase. Time: 2.00 pm. to 5.00 pm., on the second Sunday of the month. No meetings are held in December / January - winter break, or July / August –the summer break, giving 8 meetings a year. Malcolm Cadman 020 8691 5780
Email: QL@mcad.demon.co.uk

NEMQLUG - NORTH EAST MANCHESTER QL USER GROUP

Meetings are held at 181, Urmston Lane, Stretford, Manchester. M32 9EH (Near Junction 7 of M60 Motorway, which was Junction 7 M63 Motorway). Our informal meetings start at 7 p.m. and finish at 11 pm. All wel-

come. Meetings are on the last Thursday of each month (except December). John/Sarah Gilpin 0161 865 2872 (thegilpins@btinternet.com)

SCOTTISH QL USERS GROUP

SQLUG meets at George Gwilt's home every second Sunday in the month. Please contact George Gwilt before coming, to get the location. Gdgqler@gmail.com

SOLENT SUBGROUP

Meetings are at Botley Market Hall, all welcome. Park at the back and use side entrance on the 1st Saturday of the month from 2.00 pm to 6.00 pm. Graham Evans 023 8040 3350.

SURREY QUANTA SUBGROUP (SQSG)

The group is currently trying other venues in the Leatherhead - Epsom area. If you plan to attend but do not get our emails, please phone or email Ken Bain for the latest location. Meetings are 8.00 to 10.00 pm on the last Wednesday of each month except December. Ken Bain 01932 347432 (to midnight), kenb@bcs.org.uk

SUSSEX QL USER GROUP

Currently without a meeting place, anyone interested should contact Roy Wood 01273 430501 or Keith Mitchell - 01903 742263.

100 REMark check
110 CLS : CLS #0
120 INPUT #0,'Check
130 OPEN_NEW
140 EXTRAS #3
150 CLOSE #3
100 MODE 8
110 PAPER 0:INK 6:CLS
141 PRINT:PRINT"Things become invisible" when they hit the eye's blind
142 PRINT"- the place where the optic nerve leaves the eye....
148 PRINT\\\\" PRESS ENTER":PAUSE
150 tache_aveugle
160 DEFine PROCedure tache_aveugle
170 MODE 8
180 PAPER 0:CLS:CLS #0:INK 7
200 PRINT "Put yo
I WANT YOU FOR A
QUANTA ARTICLE